July 26, 2004

Don Theiler, Director and SEPA Responsible Official
Wastewater Treatment Division
KSC-NR-0505
King County Department of Natural Resources and Parks
201 South Jackson Street
Seattle, WA 98104-3855

RE: **Draft Environmental Impact Statement**
City of Carnation Wastewater Treatment Facility

Dear Mr. Theiler:

This letter summarizes our review of the upland disposal alternative for the proposed Carnation Wastewater Treatment Facility and its potential impact on groundwater quantity and quality. The Draft Environmental Impact Statement and Technical Memoranda 5 and 5a were reviewed.

I1-1 We are astonished at the lack of data in these documents to justify the conclusions stated in the text. This Environmental Impact Statement is the document that will be used by the decision maker, King County Executive Ron Sims, as a basis for choosing a wastewater treatment plant site and a discharge alternative. Yet this document does not provide enough information for the Executive to make an informed decision as to the viability of the upland discharge alternative.

I1-2 Our Scoping comments in September 2003 noted that for upland disposal to work, groundwater levels are required to be 15-20 feet below the surface. We requested that the City and County perform the necessary groundwater analysis as part of this EIS to provide site-specific data on current and winter high groundwater levels for the proposed infiltration sites and properties along the groundwater flow path below the infiltration sites. This was not done.

We asked for identification and mapping of all existing drainfields, shallow wells, natural springs and homes with basements along the groundwater flow path downstream of the proposed infiltration site to the point where the effluent is intercepted by a stream, wetland, pond or the Snoqualmie River. This has not been provided.

We asked for clear identification and documentation of all areas where the groundwater has reached the ground surface during wet winter periods and perennial springs. This work has not been done.

We requested a detailed analysis of the groundwater elevation fluctuations that normally occur within the proposed upland infiltration site and associated downstream flowpath, and for an analysis of the impact of the additional input to groundwater from the upland infiltration system with respect to the existing natural groundwater fluctuations and to natural spring flows. Estimates and hypothetical statements are all that is included in this document.

Individuals

(Organized in alpha order by last name)

Casey (I1)

Response to Comment I1-1

More detail has been added to the upland discharge discussion. Please see the revised text in Chapter 6, Section 6.2.3.3. This additional information does not include site specific work in the upland discharge study area because King County has been unable to gain access to the proposed upland discharge study area. Because of this King County agrees that a level of uncertainty exists in the data used to determine the feasibility and environmental impacts of the upland discharge alternative. Given this level of uncertainty, the Final EIS, as prescribed by SEPA, presents a worst case analysis of the upland discharge alternative's potential environmental impacts for the decision-makers to consider when selecting alternatives. Please see Chapter 6 Section 6.2.3.3 for a discussion of the worst case analysis.

Response to Comment I1-2

Please see the response to comment I1-1 for a discussion of the data used to determine the environmental impacts of the upland discharge alternative. Also, for a discussion of the likely groundwater flow paths and well log data please see the revised text in Carnation Wastewater Treatment Facility Technical Memorandum No. 5A Upland Disposal Alternatives. The anticipated natural rise in water levels in the winter is approximated from the water level data collected from September 2003 through February 2004 in one of the City's monitor wells as discussed in Section 3.4 of Technical Memorandum No. 5A. Although this well is not specifically in the upland discharge study area, the change in water levels seen over the winter should be very similar in the study area. Specific identification of water levels, flow paths, discharge points, etc. in the upland disposal study area could not be accomplished due to King County being unable to secure access to the study area. However, the studies accomplished at the City's property, along with the studies of well logs and other available information from the area are sufficient to characterize the likely behavior of ground water beneath the study area as discussed in Section 3.4.

Draft Environmental Impact Statement

I1-3 Section 2.4.2 discusses the background for the upland discharge alternative. It states "an extensive on-site hydrogeologic study would be necessary to confirm the suitability of a specific site in this area. This study has not been conducted. King County has been unable to gain access to the parcels and the hydrogeologic study would entail exorbitant cost. King County determined that since the project is still in the planning stage, the high cost of the study is not justified at this time." Therefore, the information required to determine whether or not upland disposal is even possible at a particular site cannot be provided until access is gained to the property and the extensive (and expensive) hydrogeologic study is performed.

I1-4 Section 6.1.2.5 notes that the Langlois Creek watershed is the source of Carnation's municipal water supply. It states that water quality and quantity data were not readily available for Langlois Creek. Surely the City and/or Departments of Ecology or Health have water quality data for the Carnation municipal water supply?

I1-5 Section 6.1.4 attempts to draw conclusions about the groundwater in this area without any data to base it on. Therefore, the statements are all generalizations (emphasis added):

> "The shallow aquifer is generally found at 15 to 20 feet below ground surface...It is believed that much of the water infiltrates downward to a shallow aquifer below...The shallow aquifer probably also discharges to local streams and wetlands...all water appears to be drawn from deeper aquifers."

I1-6 Section 6.2.3.3 describes operational impacts from the upland discharge alternative. It reveals that "access to the upland discharge area was limited, so site-specific information was not available at the time of this writing". Then it states "it is assumed that the proposed upland discharge sites have soil and groundwater conditions similar to those at the City-owned landfill site". There is no basis for this conclusion in the data presented in the DEIS or Technical Memoranda.

I1-7 This section continues with a discussion of "groundwater mounding" that occurs when the infiltrating water backs up instead of continuing to drain downward. "In some cases, the mounded groundwater may even show up as wet areas on the surface of the ground, which is then called groundwater flooding". Most significantly, the following statement indicates a severe environmental impact from groundwater mounding:

> "[Based on field studies at the Carnation landfill] the shallow aquifer is much less permeable than the geologic materials found at the surface. Mounding calculations indicate that with such a low permeability, the water table would mound and would, under proposed application rates, become totally saturated. This would raise the water table surface and could cause localized flooding.
>
> For an infiltration basin to drain properly, a minimum of 2 feet is required between the bottom of the basin and the top of the groundwater mound. The 5 feet of material (gravel) at the surface on the City's landfill property that was investigated as part of this study is too thin to properly allow for infiltration. It is likely that gravel would need to be consistently 15 feet thick or more across an application area for infiltration to be feasible. Additional site-specific investigation would be required to determine if the soils would have a sufficient thickness of material (gravel) to support infiltration and this disposal option."

Response to Comment I1-3

Please see the response to comment I1-1 for a discussion of the data used to determine the environmental impacts of the upland discharge alternative.

Response to Comment I1-4

The City of Carnation does not monitor the surface waters in the Langlois Creek watershed. A previous City of Carnation hydrogeologic study determined that the springs from which the municipal water supply is drawn are true ground water and not a surface water source or under the direct influence of surface water (Carnation, 2000). *Carnation, City of, 2000. Comprehensive Water System Plan. Carnation, WA: City of Carnation.*

Response to Comment I1-5

The intent of Section 6.1.4 is to characterize the existing groundwater resources in the project area. Generalizations are used because of the variation in groundwater characteristics over the 240-acre upland discharge study area.

Response to Comment I1-6

Please see the response to comment I1-1 for a discussion of the data used to determine the environmental impacts of the upland discharge alternative.

Response to Comment I1-7

Please see the response to comment I1-1 for a discussion of the data used to determine the environmental impacts of the upland discharge alternative.

I1-7 Yet earlier this document indicates that the site-specific investigation needed to determine the viability of this alternative has not been performed.

Technical Memorandum No. 5A, Upland Disposal Alternatives, Carollo Engineers, Robinson & Noble, Inc. Three monitoring wells were drilled on the southern half of the City-owned landfill property for this study. Water levels were determined for these wells during the dry late-summer period when groundwater levels are known to be at their lowest (see Geohydrology and Ground-Water Quality of East King County, Washington, USGS Report 94-4082). Two other wells located near the landfill were monitored from September 2003 through February 2004. This document notes "TM5 presented a generalized geologic and hydrogeologic setting for the upland area containing the five parcels being investigated as potential infiltration sites...However, because site access was not available for the parcels, a definitive statement cannot be currently made."

I1-8 Section 3.3 states that "surface water and wetland surveys were not conducted on the six potential sites because of access limitations". The document then cites the King County Wetland Inventory and the National Wetland Inventory, and aerial photo interpretation. Neither of these two inventories is a comprehensive evaluation of wetlands, much less streams in a particular area. The King County inventory did not thoroughly evaluate wetlands in the eastern part of King County. Aerial photo interpretation does not work in heavily forested areas, such as the area around Camp Don Bosco near the proposed upland infiltration sites. Given the testimony at previous meetings that there are springs in this vicinity, it is essential to perform on-the-ground investigation prior to choosing an upland infiltration site.

I1-9 Section 3.4 reports that the groundwater level in the monitoring well rose between 3 and 4 feet from September 2003 through February 2004. It cites precipitation data from SeaTac. It would be much more accurate to use data from the weather stations at Landsburg Dam, or even from Redmond Ridge on Novelty Hill. This section notes that "the discharge locations for the water table aquifer have not been positively identified", and again "data is not available to identify the discharge locations for the confined aquifer."

I1-10 Yet without this data, the document infers that the aquifer probably discharges to local streams and wetlands", and describes possible flow paths for groundwater in the aquifer. This section also provides water quality data from the deeper aquifer underneath the City's landfill, then states "a sample was not collected from the water table aquifer; however, its quality should be similar to that of the confined aquifer" (emphasis added). There is no factual basis for this conclusion.

I1-11 Section 4.0 notes that "the exact depth of the fill within the landfill has not been established", yet concludes "the base of the landfill is believed to be above the water table...Previous water quality studies at the landfill are inconclusive on whether the landfill had impacted the ground water". It further adds that ongoing studies may clarify this question at a later date. However, this is the decision document for the Executive to use to choose a discharge alternative. The data should be presented in this document at this time.

I1-12 Section 5.1 provides the technical information on groundwater mounding. It notes that a mound within the gravel would rise between five and thirty feet, then states "gravel thicknesses would likely need to be consistently 15 feet thick or more across an application area for infiltration to be feasible". If the groundwater can mound to thirty feet in thickness, it would seem that the gravel would need to be thirty feet thick to prevent "groundwater

Response to Comment I1-8

Please see Chapter 7, Section 7.1.4.3 of the Final EIS. Several wetlands have been identified through review of wetland inventories and aerial photography. King County Wastewater Treatment Division agrees that wetland inventories and aerial photography have limitations in identifying wetlands. The wetland areas would not be suitable for upland infiltration. If the upland discharge alternative was selected, on-the-ground surveys would be conducted to make sure the infiltration ponds would be sited in a portion of the upland discharge area outside of the wetlands.

Response to Comment I1-9

At the time Technical Memorandum 5A was written, precipitation data for the full period of September through February was not available for the closest official climatological data station run by the National Climatic Data Center (Snoqualmie Falls). The data is now available and the Memorandum has been amended to reflect the new data.

Response to Comment I1-10

King County agrees that inferences were made and a level of uncertainty exists in statements on groundwater flow paths and water quality. However, with the information available, the discharge from the water table aquifer must be to local streams and wetlands and/or to leakage to the confined aquifer. The uncertainty arises from not knowing whether all the wetlands and streams are discharge features or just some and not knowing how much discharges vertically through leakage versus laterally to the surface water features. Discharge pathways from the confined aquifer are less certain because there are no known local surface water features which correspond with the known elevation of the aquifer. However, within the regional setting, there are no other known discharge points than those cited in the technical memorandum. Water quality in the two aquifers should be similar because they both derive water from the same recharge sources – precipitation local to the area. When inferences were made they are based on best available information. Because this level of uncertainty exists, the Final EIS, as prescribed by SEPA, presents a worst case analysis of the upland discharge alternative's potential environmental impacts for the decision-makers to consider when selecting alternatives. Please see Chapter 6 Section 6.2.3.3 for a discussion of the worst case analysis.

Response to Comment I1-11

Please see the response to comment I1-1 for a discussion of the data used to determine the environmental impacts of the upland discharge alternative.

Response to Comment I1-12

Please see the response to comment I1-1 for a discussion of the data used to determine the environmental impacts of the upland discharge alternative. The projected range of mounding (5-30 feet) results from uncertainty in the permeability of the recessional gravels; therefore, it is true that up to 30 feet of gravel may be needed. However, it is likely that less than 30 feet would be needed for more typical permeability values of gravel, particularly since the basin design could be changed to help minimize mounding.

I1-12 flooding" onto the surface. This document does not explain how infiltration basins can work when the ground beneath them is "totally saturated". It does note that "it cannot be determined with existing information whether the six sites proposed for upland disposal have a sufficient thickness of outwash gravel."

Section 5.2 discusses the flow paths of the infiltrated water. It begins with the statement that "the exact flow paths infiltrated water would take from the proposed infiltration location cannot be established with existing information". Due to the mounding of groundwater, this document expects that "water supply wells west and/or northwest of the infiltration site may pump native water mixed, to some degree, with infiltrated water".

Section 5.3 states that the upland disposal option "does have the potential to increase the amounts of certain PPCPs (pharmaceuticals and personal care products) in the ground water; however, the exact nature of any impact cannot be currently addressed due to a lack of PPCP data for both potential discharge water and existing ground water".

Summary

I1-13 The upland disposal alternative should be withdrawn from this Environmental Impact Statement because the necessary evaluations have not been performed and the information has not been included in this document to enable the decision-maker to make an educated decision as to the viability of the upland discharge alternative.

I1-14 The potential water quality risk from infiltrated treated wastewater mixing with the groundwater in water supply wells, including potentially in the water supply for 90% of the City of Carnation, has not been sufficiently investigated and the data is not provided in this document to allow the decision-maker to evaluate the health risk to citizens living downslope of the proposed infiltration basins.

I1-15 Further, wetlands, streams and springs have not been evaluated on the proposed disposal sites. The potential for groundwater contamination from the adjacent City-owned landfill is still being evaluated. Downstream water quantity impacts may include localized flooding from groundwater mounding. The EIS states in numerous places that the site-specific evaluation of the hydrogeology of the upland disposal sites has not been performed, and therefore definitive conclusions cannot be reached regarding the viability of any of these disposal sites.

I1-16 Another option would be to prepare a supplemental EIS once the detailed hydrogeologic studies have been performed on a chosen property. If no suitable site for upland discharge is available, then one of the other disposal alternatives would have to be used, after the County and City have already spent considerable time and money investigating the failed upland discharge alternative. This does not seem like a very efficient use of taxpayer dollars.

Response to Comment I1-13

Please see the response to comment I1-1 for a discussion of the data used to determine the environmental impacts of the upland discharge alternative. This discussion also indicates that due to the uncertainty regarding the geology of the site, King County is presenting a worst-case analysis of the project's environmental impacts at the site for decision-makers' consideration.

Response to Comment I1-14

Please see Chapter 6, Section 6.2.3.3 for a discussion of the groundwater quality impacts. Also, see Chapter 10, Section 10.2.2.3 for a discussion of infiltrated highly treated water mixing with native water in the confined aquifer and environmental health impacts.

Response to Comment I1-15

Please see Chapter 6, Section 6.1.2 for information on existing surface water bodies in the project area. Also, please see Chapter 7, Section 7.1 for a discussion of existing wetlands in the project area. The King County Wastewater Treatment Division agrees that groundwater contamination from the adjacent landfill site is still being evaluated and that localized flooding associated with groundwater mounding could occur.

Response to Comment I1-16

Please see the response to comment I1-1 for a discussion of the data used to determine the environmental impacts of the upland discharge alternative. A supplemental EIS is neither necessary nor appropriate. The Draft EIS was issued at a point in time when a certain level of information was known relating to the probable significant adverse impacts of the proposal and possible ways to mitigate those impacts. Since issuance of the Draft EIS, further analysis has been conducted. In areas where there was uncertainty in one respect or another as to impacts, then following SEPA's guidelines, the EIS presents a worst-case analysis of impacts.

RE: Draft Environmental Impact Statement –
City of Carnation Wastewater Treatment Facility
July 26, 2004
Page 5

Thank you for the opportunity to comment on the Draft Carnation Wastewater Treatment Facility. If you have any questions regarding my comments, please contact us at the phone number, email or address below.

Sincerely,

David and Laura Casey
2441 – 323rd Avenue NE
Carnation, WA 98014
425-333-4199
caseydl@earthlink.net

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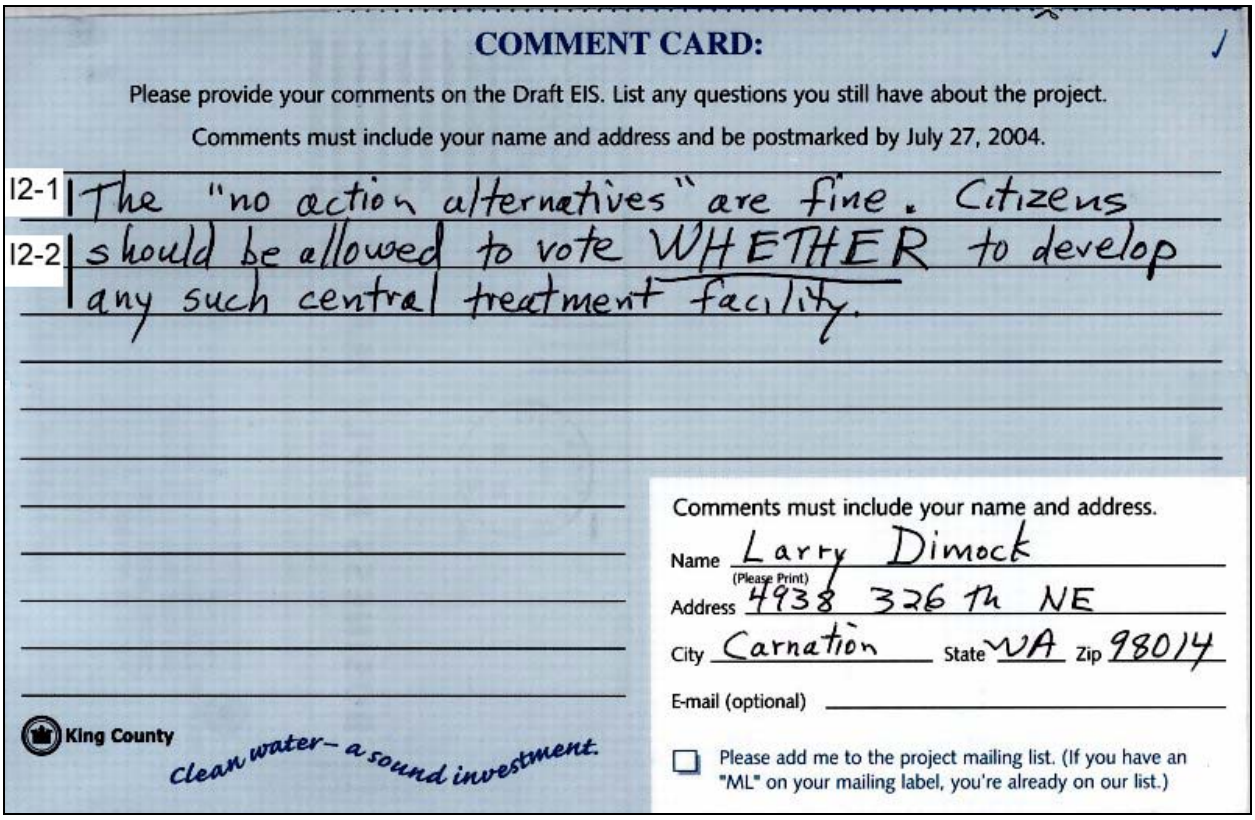


COMMENT CARD:

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

I2-1 The "no action alternatives" are fine. Citizens

I2-2 should be allowed to vote WHETHER to develop any such central treatment facility.

King County

clean water– a sound investment.

Comments must include your name and address.

Name (Please Print) Larry Dimock

Address 4938 326th NE

City Carnation State WA Zip 98014

E-mail (optional)

☐ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

Dimock (I2)

Response to Comment I2-1

Thank you for your comment.

Response to Comment I2-2

The process by which the City of Carnation reached the decision to build wastewater treatment facilities is summarized in Chapter 2, Section 2.1, History and Section 2.3, Planning Background.

RECEIVED
JUL 23 2004
ENVIRONMENTAL
PLANNING DIVISION

July 20, 2004

Mark Dinwiddie
3025 Lake Langlois Rd.
Carnation, Wn. 98014
425-333-6729

King County Dept. of Natural Resources
Waste Treatment Division
201 S. Jackson St
Seattle, WN. 98104

Re: Carnation Wastewater Treatment Facility

I3-1 Obviously the best Treatment Plant Site is the one currently owned by the City. Why go out and purchase new property when the City already has what it needs.

I3-2 The location for the discharge should be the Wetlands Discharge area. Why would the City want to waste 10 acres of usable ground when it can discharge into Wetlands? The Wetlands are currently unusable except for wildlife habitat. Discharging into the Wetlands would only enhance the Stillwater Wildlife Area.

If the County/City is honest in its desire to protect and conserve the rural areas and enhance wildlife, then there is very little choice than to go with the City owned property and discharge into Stillwater Wildlife Area.

Sincerely,

Mark Dinwiddie

Dinwiddie (I3)

Response to Comment I3-1

SEPA requires that an EIS discuss reasonable alternatives. For the treatment plant, this EIS meets this requirement by evaluating the potential environmental impacts of constructing and operating the plant at two alternative sites. Decision makers will take the environmental impacts at the two sites into account along with non-environmental factors such as cost and community impacts in choosing a treatment plant site.

Response to Comment I3-2

As indicated in the response to comment I3-1, SEPA requires that an EIS discuss reasonable alternatives. The wetland, river and upland discharge alternatives are reasonable alternatives for the discharge facility. Decision makers will take the environmental impacts of these alternatives into account along with non-environmental factors such as cost and community impacts in choosing a discharge facility.

-----Original Message-----
From: lhouk@issaquah-bank.com [mailto:lhouk@issaquah-bank.com]
Sent: Thursday, July 01, 2004 3:52 PM
To: website.wtd@metrokc.gov
Cc: james.foulk@metrokc.gov; courtney.hudak@metrokc.gov
Subject: EIS for proposed Carnation Wastewater Treatment Plant

On "07/01/2004" at "03:52PM": A customer comment from Larry Houk was posted from the King County webpage http://dnr.metrokc.gov/wtd/carnation/EIS/comment.htm and mailed to website.wtd@metrokc.gov

Subject: EIS for proposed Carnation Wastewater Treatment Plant
Comment Type: Question
Email Address: lhouk@issaquah-bank.com

Please log this comment for the aformentioned project on behalf of Larry Houk 4138 327th Circle NE Carntion Washington. (1) The monthly fee for the Sewer service is excessive, two to three times above the average rates in King County. This will burden the budgets of the average home owner in Carnation. How is this being address? Is a $25,000,000 treatment plant the only answer.

I4-1

An email response has been requested.

Houck (I4)

Response to Comment I4-1

SEPA does not require an EIS to consider the cost of a proposal. Cost and other non-environmental factors will be taken into account by decision makers along with the environmental factors discussed in the EIS in choosing treatment facility alternatives.

Please contact the City of Carnation for information on how costs to homeowners are being addressed.

In Chapter 3, Section 3.4, the EIS provides a summary of other alternatives that were considered.

COMMENT CARD:

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

I believe the Weck Weath Treatment plant site is A poor choice. If built there it would be located right next to Tolt Middle School. For odor & health reasons, this would A poor choice.

I16-1

King County

clean water– a sound investment.

Comments must include your name and address.

Name LONNIE P. HUGHES (Please Print)

Address 4007-325TH AVE N.E.

City CARNATION State WA Zip 98014

E-mail (optional) _____

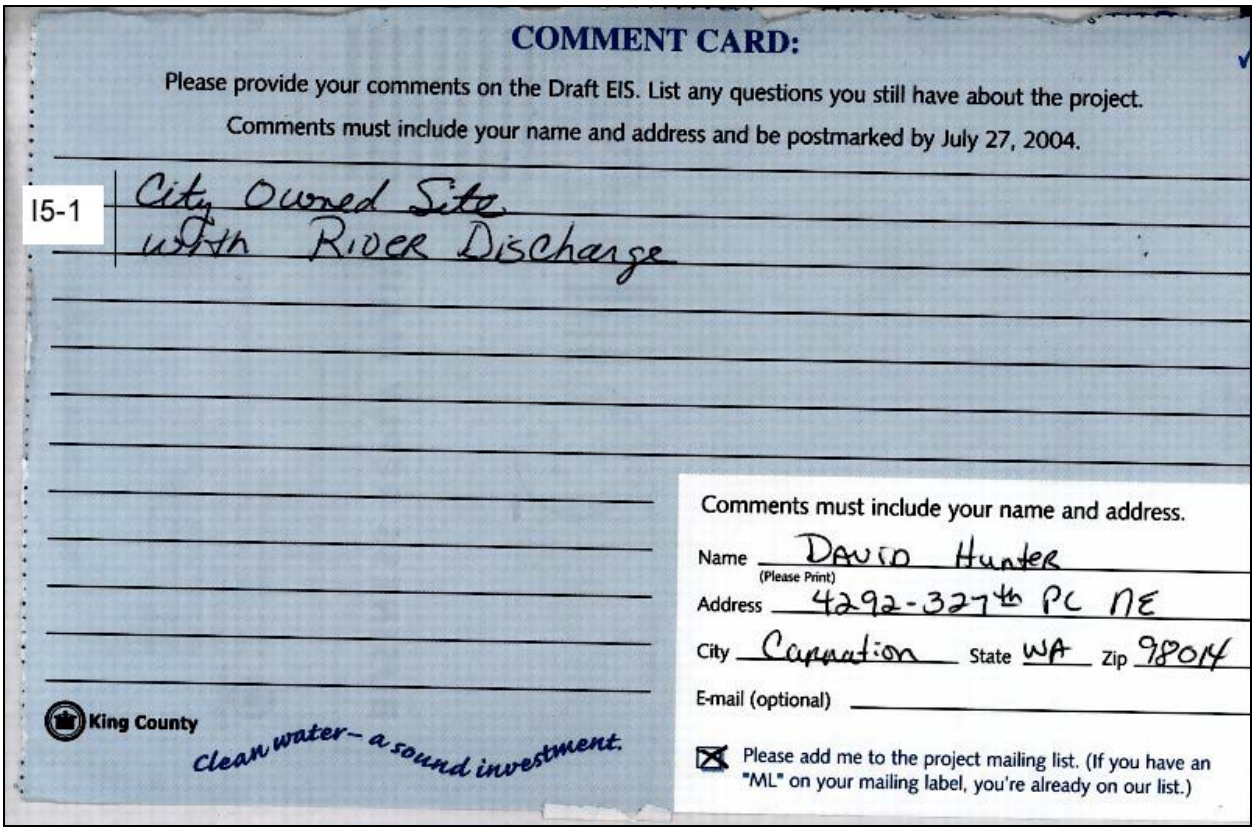
☐ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

Hughes (I16)

Response to Comment I16-1

Please see the response to comment Dinwiddie, I3-1.

If the Weckwerth site were chosen for the plant, King County would implement appropriate mitigation measures, such as those discussed in the EIS, to minimize impacts on the school. Please see the responses to the Riverview School District comments for more detail.



COMMENT CARD:

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

I5-1 City Owned Site with River Discharge

King County

clean water– a sound investment.

Comments must include your name and address.

Name David Hunter (Please Print)

Address 4292-327th PL NE

City Carnation State WA Zip 98014

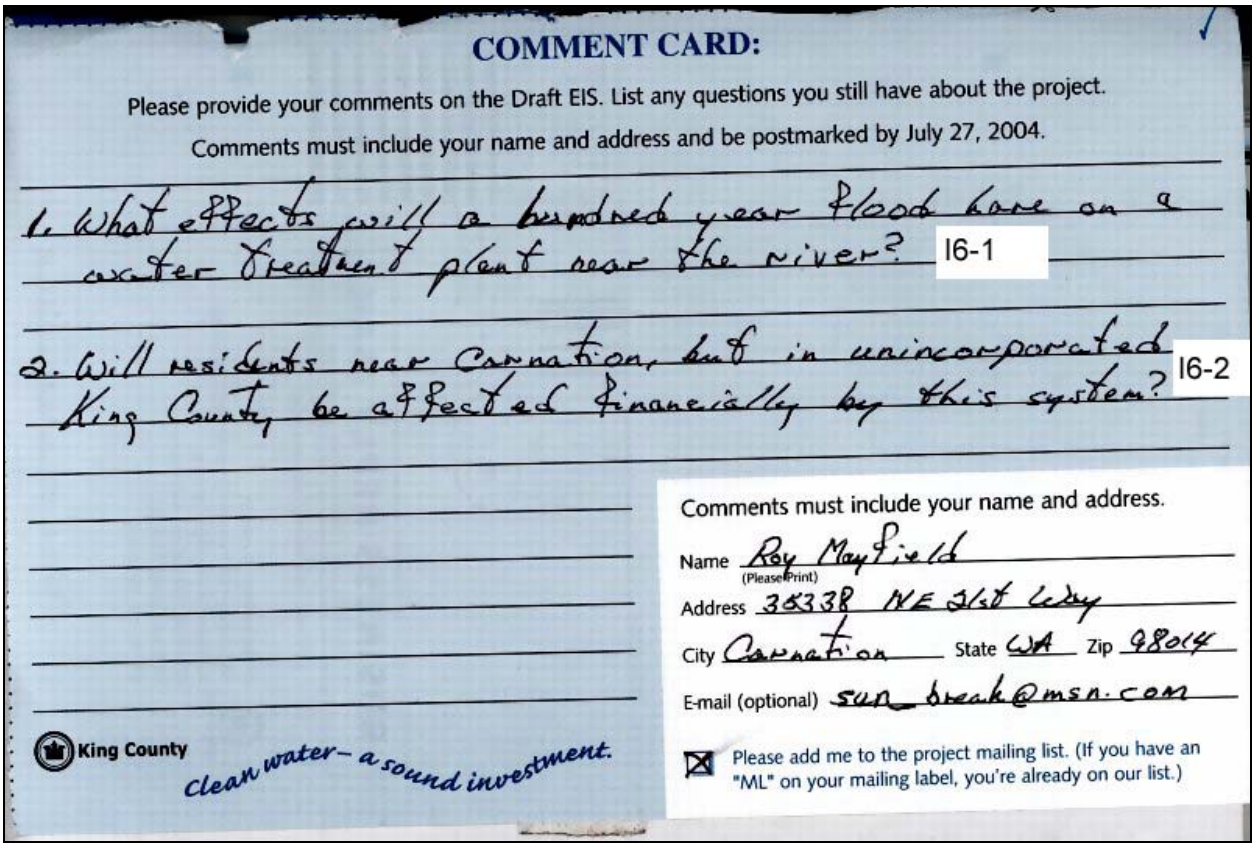
E-mail (optional)

☒ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

Hunter (I5)

Response to Comment I5-1

Thank you for your comment.



COMMENT CARD:

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

1. What effects will a hundred year flood have on a water treatment plant near the river? I6-1

2. Will residents near Carnation, but in unincorporated King County, be affected financially by this system? I6-2

Comments must include your name and address.

Name Roy Mayfield (Please Print)

Address 33338 NE 31st Way

City Carnation State WA Zip 98014

E-mail (optional) sun_break@msn.com

☒ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

King County

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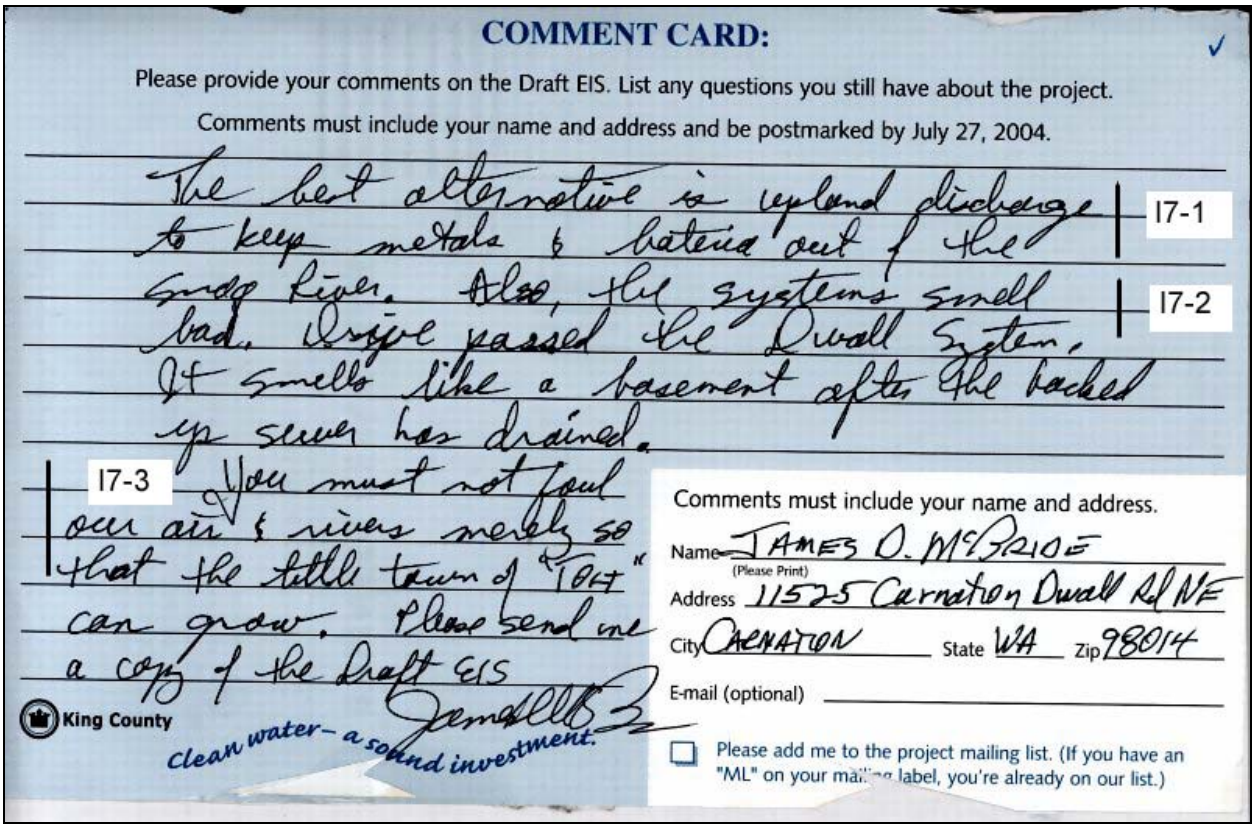
Mayfield (I6)

Response to Comment I6-1

Please see Chapter 6, Section 6.2.2 of the Final EIS for a discussion of the potential flood impacts and mitigation measures associated with the treatment plant.

Response to Comment I6-2

The only residents of unincorporated King County who might be affected financially would be those living outside the current city limits but inside Carnation's designated urban growth area (see EIS Figure 1-2). If in the future Carnation annexed this area and extended the sewer collection system there, area residents who connected to the system would have to pay to use it.



COMMENT CARD: ✓

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

The best alternative is upland discharge to keep metals & bateria out of the Snoq River. Also, the systems smell bad. Driving passed the Duvall System, it smells like a basement after the backed up sewer has drained. I7-1 I7-2

I7-3 You must not foul our air & rivers merely so that the little town of "Toy" can grow. Please send me a copy of the Draft EIS

Comments must include your name and address.

Name JAMES O. McBRIDE (Please Print)

Address 11525 Carnation Duvall Rd NE

City CARNATION State WA Zip 98014

E-mail (optional) _____

☐ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

King County

Clean water– a sound investment.

McBride (I7)

Response to Comment I7-1

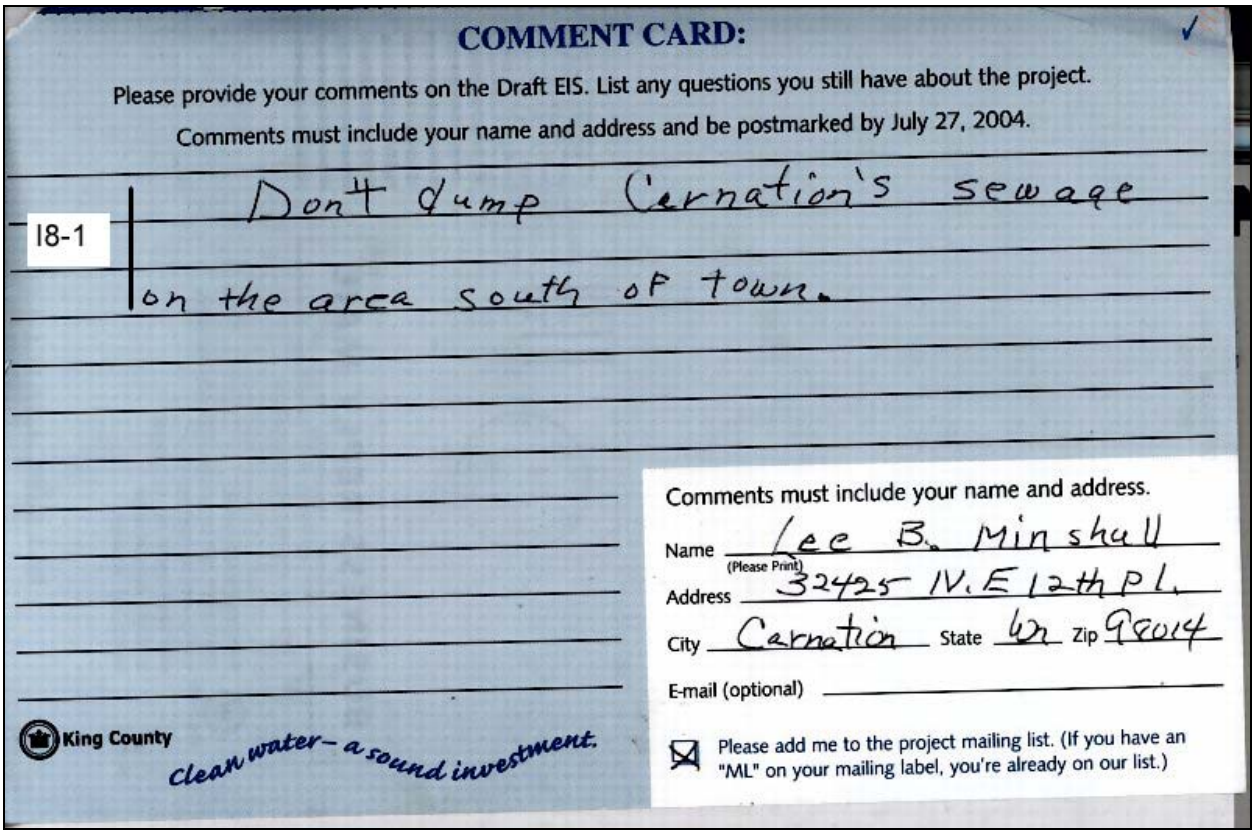
Chapter 3, Table 3-3 compares the potential environmental impacts of discharging highly treated water to the river, wetlands or upland. Chapter 6, Section 6.2.3 provides a detailed discussion of these impacts.

Response to Comment I7-2

In Chapter 5, Section 5.2.1.2, the EIS states that, "Minimal odor impacts to the surrounding properties are expected during operation of the treatment plant with implementation of the odor-control measures discussed in the section titled Mitigation Measures Common to All Treatment Facilities." The referenced mitigation measures are listed in Section 5.2.1.3.

Response to Comment I7-3

As indicated in the response to the previous comment, minimal odor impacts are expected from the treatment facility. Also, as discussed in Chapter 6 of the EIS, the treatment facility is not expected to cause any significant adverse impacts to ambient water quality. Chapter 1, Section 1.2 discusses the purpose and need for the project.



COMMENT CARD: ✓

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

I8-1 Don't dump Carnation's sewage on the area south of town.

King County

clean water– a sound investment.

Comments must include your name and address.

Name Lee B. Minshall (Please Print)

Address 32425 IV. E 12th Pl.

City Carnation State Wa Zip 98014

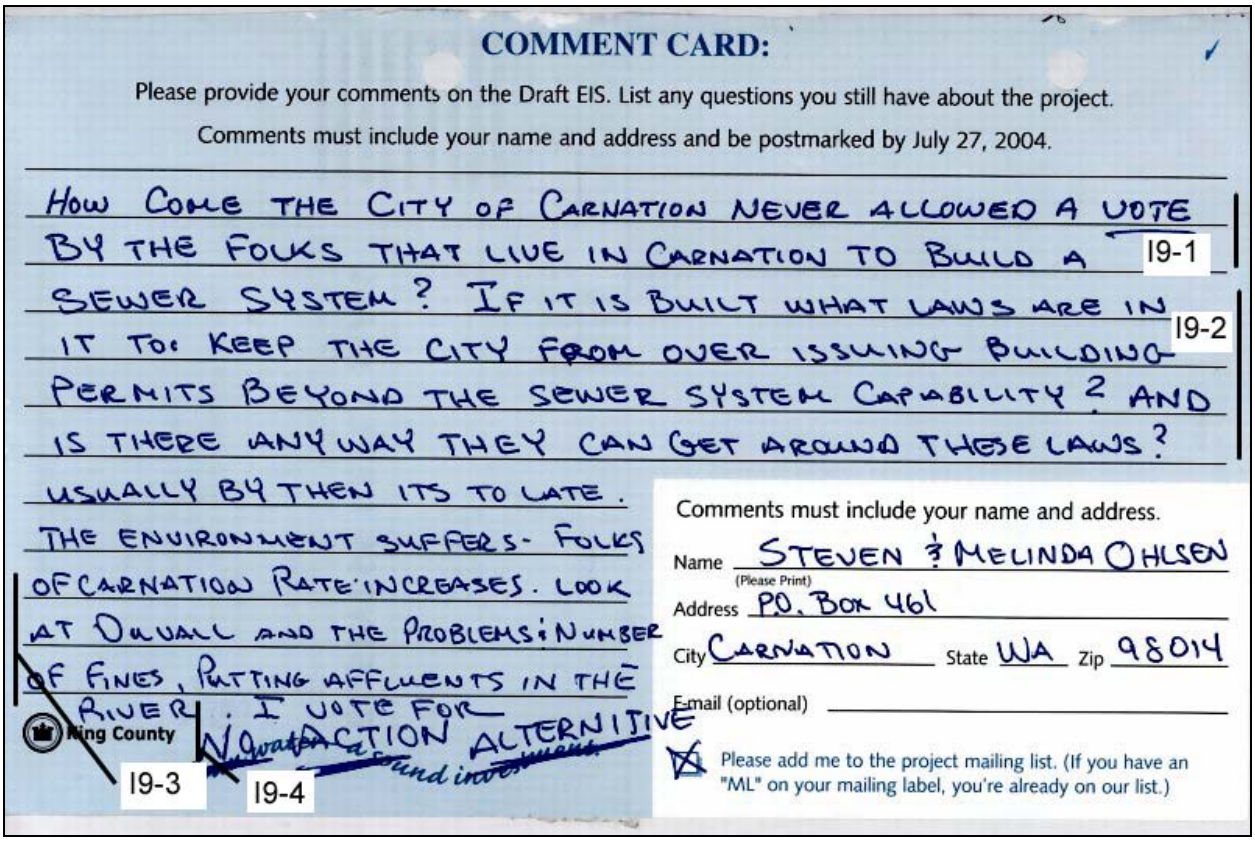
E-mail (optional)

☒ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

Minshall (I8)

Response to Comment I8-1

Thank you for your comment.



COMMENT CARD:

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

HOW COME THE CITY OF CARNATION NEVER ALLOWED A VOTE BY THE FOLKS THAT LIVE IN CARNATION TO BUILD A SEWER SYSTEM? IF IT IS BUILT WHAT LAWS ARE IN IT TO: KEEP THE CITY FROM OVER ISSUING BUILDING PERMITS BEYOND THE SEWER SYSTEM CAPABILITY? AND IS THERE ANY WAY THEY CAN GET AROUND THESE LAWS? I9-1 I9-2

USUALLY BY THEN ITS TO LATE. THE ENVIRONMENT SUFFERS- FOLKS OF CARNATION RATE INCREASES. LOOK AT DUVALL AND THE PROBLEMS: NUMBER OF FINES, PUTTING AFFLUENTS IN THE RIVER. I VOTE FOR NO ACTION ALTERNITIVE

King County

I9-3 I9-4

Comments must include your name and address.

Name STEVEN & MELINDA OHLSEN (Please Print)

Address P.O. BOX 461

City CARNATION State WA Zip 98014

E-mail (optional) _____

☒ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

Ohlsen (I9)

Response to Comment I9-1

The process by which the City of Carnation reached the decision to build wastewater treatment facilities is summarized in Chapter 2, Section 2.1, History and Section 2.3, Planning Background.

Response to Comment I9-2

King County and the City of Carnation have entered into an agreement for sewage disposal. Based on this agreement King County is obligated to accept and treat all sewage the city delivers to the plant. If sewage volumes someday approach the capacity of the plant, King County will be obligated to construct additional capacity.

The most important element to ensuring that building permits and connections to the sewer system do not exceed the capacity is planning. During the wastewater treatment plant planning process current population projections, buildable lands data, land use zoning, and other information are used to design a wastewater facility to accommodate the current and future population of Carnation. King County is sizing the Wastewater Treatment Facility to accommodate City of Carnation wastewater flows through 2050. Several documents provide detailed population and wastewater flow projections including the City of Carnation Comprehensive Sewer Plan and City of Carnation Comprehensive Land Use Plan. For further information on sizing of the wastewater treatment facility please see Technical Memorandum No. 2 Population, Flow, and Loads published with the EIS.

The wastewater treatment plant will operate under a National Pollutant Discharge Elimination System (NPDES) Permit issued by the Department of Ecology. The NPDES permit will contain design criteria including capacity of the plant. In addition the permit will contain requirements that King County plan to maintain capacity. This requires King County to submit a plan to the Department of Ecology when the design capacity reaches 85 percent for three consecutive months or when the projected increases would reach design capacity within five years whichever comes first.

In an extreme case the Department of Ecology has the authority to determine that a moratorium on connections to the wastewater treatment plant is necessary.

Response to Comment I9-3

King County Wastewater Treatment Division is aware that Duvall has experienced problems with discharge permit limits for silver, zinc, copper, and mercury. To address these and other issues, Duvall is currently upgrading its treatment plant and has selected the Membrane Bioreactor (MBR) technology. These types of problems are not anticipated in Carnation for the following reasons. The Membrane Bioreactor (MBR) technology that would be used is one of the best available technologies for treating municipal wastewater. In the unforeseen event that additional metals removal is required to meet permit limits, the treatment plant would also have chemical addition capabilities that would enable enhanced metals removal.

Response to Comment I9-4

Thank you for your comment.

COMMENT CARD:

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

I HOPE A GREAT DEAL OF CONSIDERATION GOES INTO THE
ADDITIONAL GROWTH THAT OCCURS WHEN A SEWER SYSTEM I10-1
IS PUT IN. WITH THE HUGE BOOM OF SNOQUALMIE & DUVALL, THE
ROADS INTO REDMOND AND BELLUVE ARE FULL NOW. WE USED TO
HAVE A GREAT SUMMER RUN STEELHEAD AND SEA RUN CUTTHROAT I10-2
AND KING SALMON FISHERY ON THE SNOQ. & TOLT RIVERS. THAT
HAS BEEN GONE. WHY? ALL THOSE
I10-3 PLACES OF DISCHARGE ARE ESSTRUARIES
FOR THE LAST COHO & CUTTHROAT
OF HARRIS CREEK. WHAT ABOUT
DURING HIGH WATER?. I THINK ALOT
WAS NEVER TOLD TO THE FOLKS OF
CARNATION.
I VOTE NO ACTION ALTERNIVE clean water – a sound investment.

King County

Comments must include your name and address.

Name STEVEN MELVIN OHLSEN
(Please Print)

Address P.O. BOX 461

City CARNATION State WA Zip 98014

E-mail (optional)

☐ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

Ohlsen (I10)

Response to Comment I10-1

The EIS addresses the impacts of new growth in the section titled "Cumulative Impacts" at the end of each impact chapter. The proposal for a treatment facility is consistent with the City of Carnation Comprehensive Plan and other planning documents. These planning documents take many elements of the environment into account including transportation planning to effectively manage population changes over time. Also, the wastewater treatment facility is being planned and designed to serve the current and future population within the City of Carnation and its annexation area. The population projections for Carnation have been developed as part of a regional planning process. These projections are used in transportation planning to expand current roads and build new roads where needed.

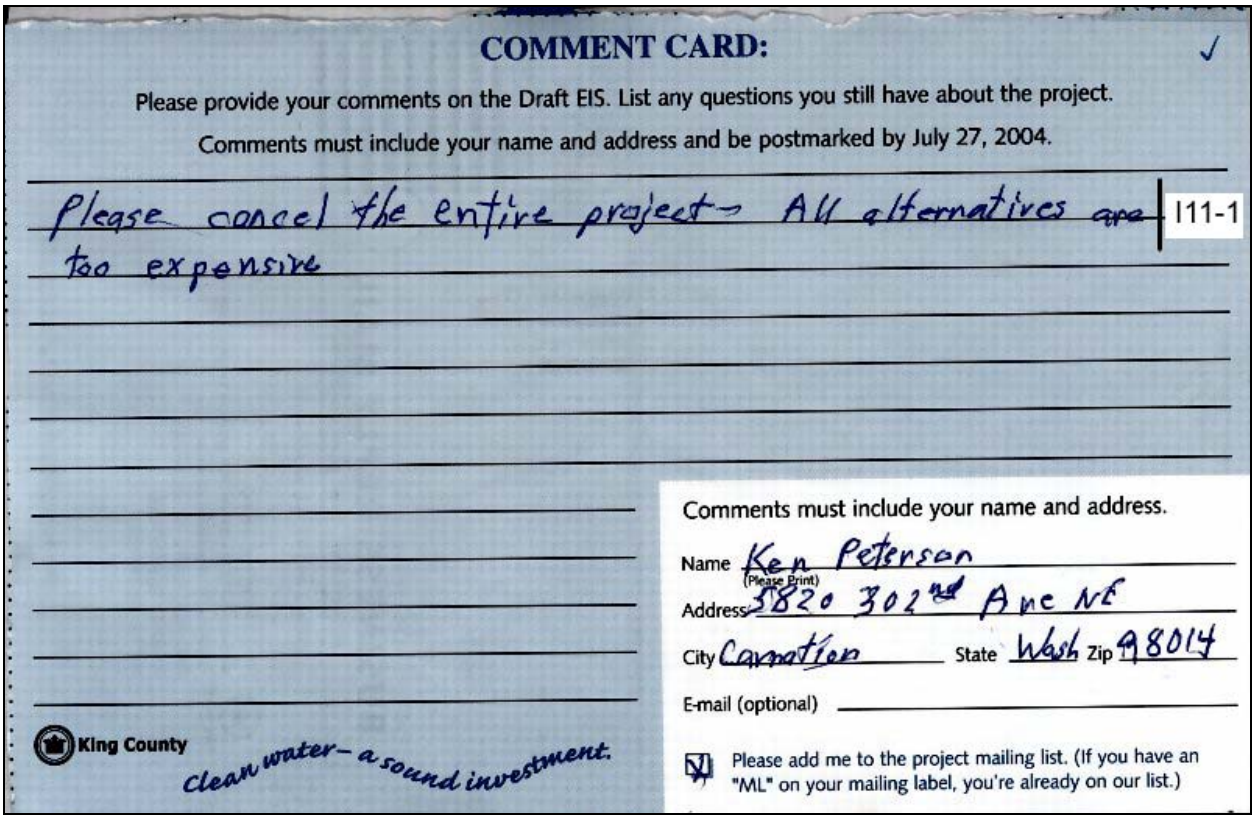
Response to Comment I10-2

Information on status of fisheries in the Snoqualmie and Tolt Rivers are available from the Washington Department of Fish and Wildlife. Available reports suggest the Snoqualmie River Watershed contains some of the healthiest habitat remaining in King County and supports wild populations of coho, chinook, chum and pink salmon, as well as, steelhead, cuttthroat, rainbow and bull trout (King County WLR, 2001). The Draft EIS reported that all of the above salmonid species are known to be present in the Snoqualmie and Tolt Rivers adjacent to Carnation. Specific reasons for the decline in any of the salmonid species populations in the watershed are not immediately available. Generally, the decline is likely a combination of numerous factors including low ocean productivity, overharvest, interactions with less-fit hatchery fish, loss and degradation of habitat due to physical modifications in and along the river and upland land development (residential, commercial, agricultural and forestry related). The latter also increases stormwater runoff associated with development. Stormwater runoff can reduce water quality (more fine sediments and contaminants) and cause stream flows to more quickly increase, leading to increased flooding and erosion impacts to aquatic organisms, including salmon.

King County Department of Natural Resources and Parks, Water and Land Resources Division. 2001. Salmon Conservation in the Snoqualmie Watershed—Snoqualmie Watershed Forum Strategy and Work Plan 2001. Prepared in cooperation with the City of Carnation, City of Duvall, City of North Bend, and City of Snoqualmie.

Response to Comment I10-3

Chapter 7 of the Draft and Final EIS discusses known current fish use of Harris Creek. No water discharged at the wetland discharge would reach Harris Creek via surface water flow. It is possible, although unlikely, some of the water discharged could reach Harris Creek via groundwater flow. Safeguards will be designed in the treatment process to monitor discharged water and protect aquatic species at the wetland discharge site.



COMMENT CARD: ✓

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

Please cancel the entire project - All alternatives are too expensive I11-1

King County

clean water – a sound investment.

Comments must include your name and address.

Name Ken Peterson (Please Print)

Address 3820 302nd Ave NE

City Carnation State Wash Zip 98014

E-mail (optional)

☒ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

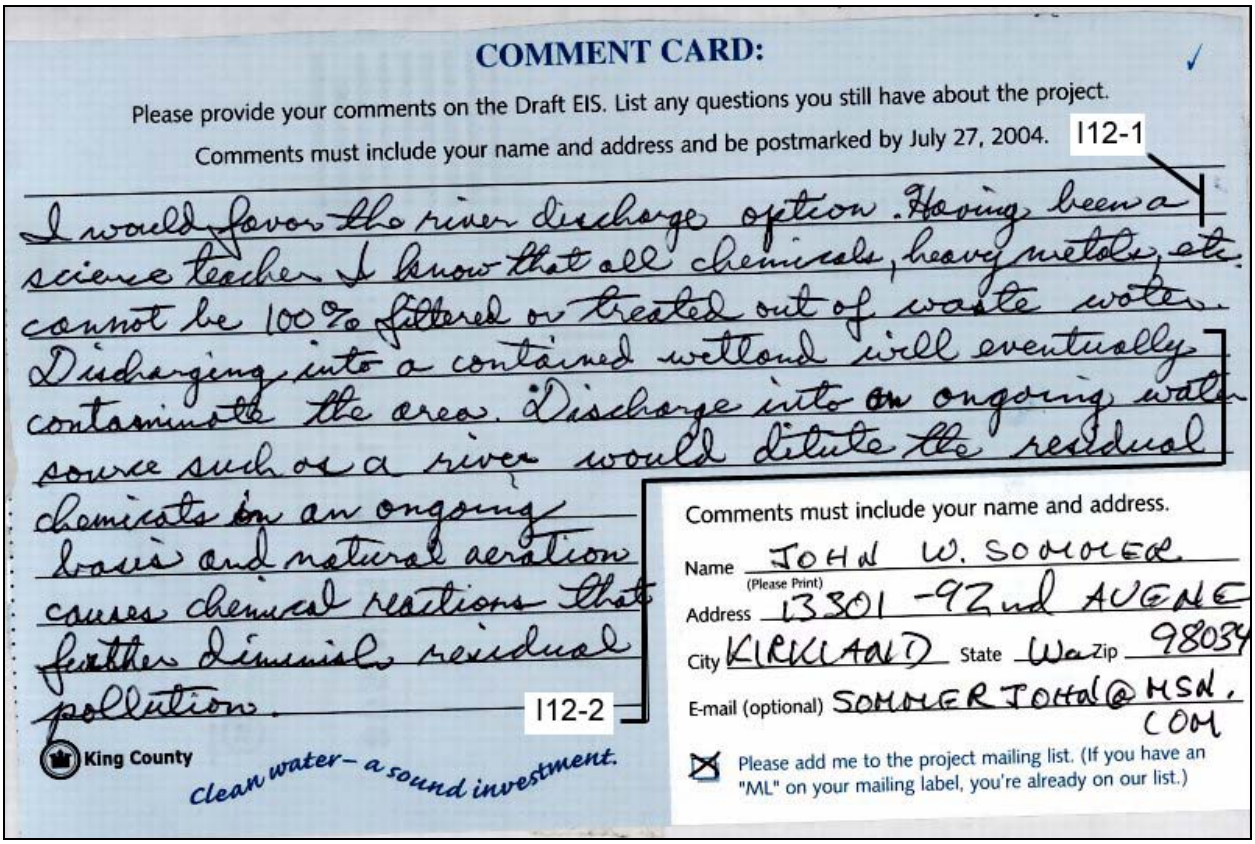
Peterson (I11)

Response to Comment I11-1

SEPA does not require an EIS to consider the cost of a proposal. Cost and other non-environmental factors will be taken into account by decision makers along with the environmental factors discussed in the EIS in choosing treatment facility alternatives.

Please contact the City of Carnation for information on how costs to homeowners are being addressed.

In Chapter 3, Section 3.4, the EIS provides a summary of other alternatives that were considered.



COMMENT CARD:

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

I12-1

I would favor the river discharge option. Having been a science teacher I know that all chemicals, heavy metals, etc. cannot be 100% filtered or treated out of waste water. Discharging into a contained wetland will eventually contaminate the area. Discharge into an ongoing water source such as a river would dilute the residual chemicals in an ongoing basis and natural aeration causes chemical reactions that further diminish residual pollution.

I12-2

King County

clean water– a sound investment.

Comments must include your name and address.

Name JOHN W. SOMMER (Please Print)

Address 13301 -92nd AVENUE

City KIRKLAND State WA Zip 98034

E-mail (optional) SOMMERJOHN@MSN.COM

☒ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

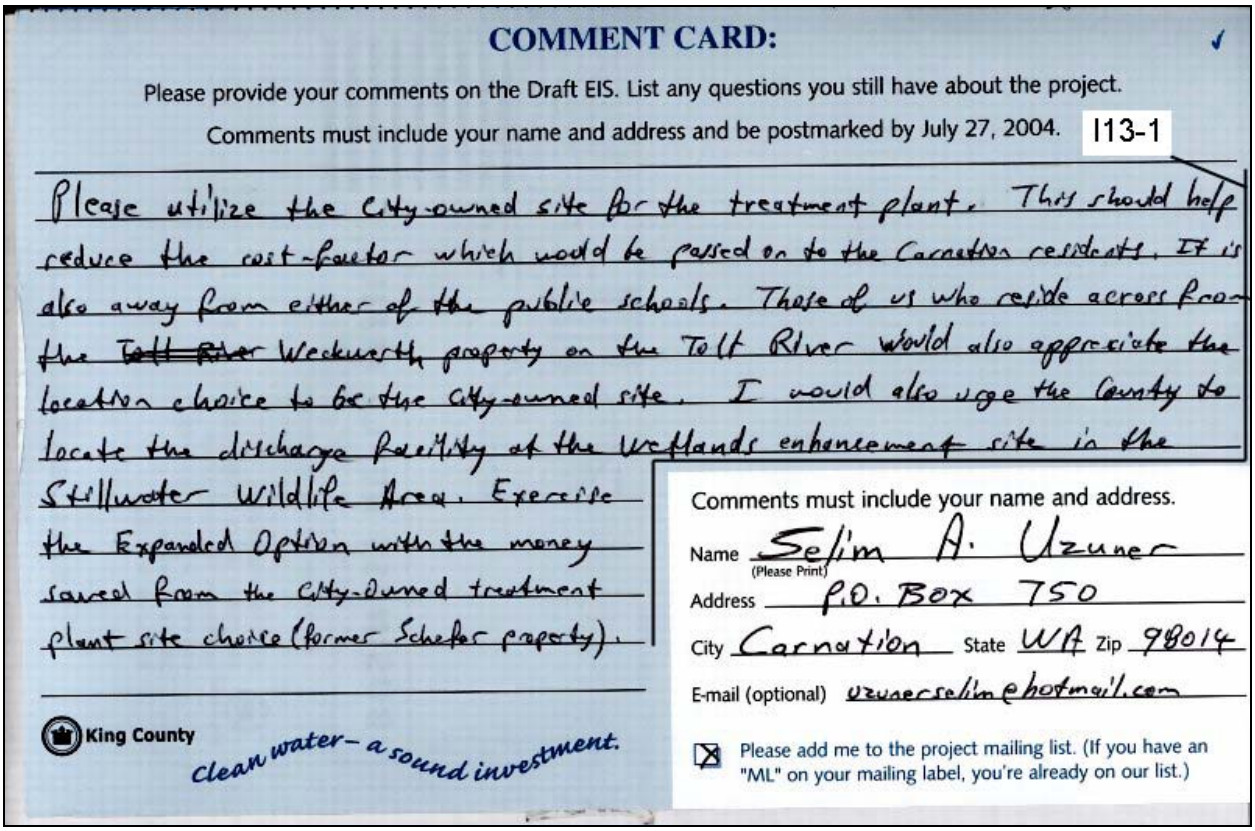
Sommer (I12)

Response to Comment I12-1

As stated in the Draft EIS, the King County Wastewater Treatment Division has selected membrane bioreactors (MBRs) as the treatment technology for the proposed Carnation Wastewater Treatment Facility. MBR technology produces highly treated water. Please see Chapter 6, Table 6-2 for information on the amount of pollutant removal during the wastewater treatment process. Any discharge alternative selected would be required to meet a variety of permit conditions including the National Pollutant Discharge Elimination System (NPDES). Permits requirements would be placed on the quantity and concentration of pollutants in the highly treated water. These requirements are developed to protect public health and safety as well as preserve the beneficial uses of water bodies for people and wildlife.

Response to Comment I12-2

King County Wastewater Treatment Division agrees that the discharging to the river provides a larger column of water and greater dilution of highly treated water than in the wetland. The wetland differs from the river in that further removal of pollutants could occur through natural physical and biological process. Both the river and wetland have potential pollutant removal advantages. For these and other reasons no significant impacts to water quality are expected from either discharge alternative. Please see Chapter 6, Section 6.2.3 for a discussion of the water quality impacts of discharge to both the river and wetland.



COMMENT CARD:

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004. I13-1

Please utilize the City-owned site for the treatment plant. This should help reduce the cost-factor which would be passed on to the Carnation residents. It is also away from either of the public schools. Those of us who reside across from the ~~Tolt River~~ Weckworth property on the Tolt River would also appreciate the location choice to be the City-owned site. I would also urge the County to locate the discharge facility at the Wetlands enhancement site in the Stillwater Wildlife Area. Exercise the Expanded Option with the money saved from the City-owned treatment plant site choice (former Schafer property).

King County

Clean water– a sound investment.

Comments must include your name and address.

Name Selim A. Uzuner (Please Print)

Address P.O. Box 750

City Carnation State WA Zip 98014

E-mail (optional) uzunerselim@hotmail.com

☒ Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

Uzuner (I13)

Response to Comment I13-1

Please refer to the response to comments Washington State Department of Natural Resources, S2-2 and Dinwiddie, I3-1 for a discussion of the decision process that will be used to select alternatives considered in this EIS.

From: Paul Webber[SMTP:JPWEBBER@ATTBI.COM]
Sent: Monday, July 26, 2004 10:50:04 PM
To: CarnationWWTP@metrokc.gov
Subject: Comments on Draft EIS

I will begin my comments by saying I have never read and EIS with more assumptions, likelihood's and conjecture.

I14-1 In section 4.1.4 A hazardous seismic area is stated for the River and Wetland discharge options, but not for the Upland infiltration option. How can that be when they are all three located in the same geologic area and crossing the Tolt river would add additional seismic hazards. Does County Critical Areas Ordinances cover the construction of the proposed pipelines for all three alternative discharge scenarios? To what extent will the pipeline be seismically protected?

I14-2 4.1.4.3 Upland discharge doesn't have a seismic rating?

I14-3 Also this section makes the analogy based on an assumption that the soil conditions are the same at the City landfill site as for the upland discharge sites? Is this a valid assumption?

I14-4 4.2.5 No action alternative says seismic events could cause failure of on site septic systems, what are the risks to treatment plant and collection system from seismic events?

I14-5 6.1.4 Existing groundwater resources. This section says no site specific explorations have been conducted for the proposed plant locations, but states that higher water table is "likely" the result of increased rain. This is sound science on which to write an EIS?In discussing the geology of the Stillwater site, the draft presumes the deposits "are underlain by more permeable fluvial deposits".and that surface water "does not likely reach ground water" and upward transfer is "unlikely".

I14-6 In the discussion of the upland discharge area the "discharge locations for the shallow aquifer have not been positively identified " and it "is believed that much of the water infiltrates downward to a confined aquifer" Is this sound science to make such assumptions? Continuing in this section "it appears there is only one house in the

I14-7 discharge area itself", and it goes on to say "there is likely only one water supply well in the discharge area". Again we are assuming and not presenting factual data to support the EIS. Finally the EIS says "downward seepage does

I14-8 ultimately move water into the lower confined aquifer" where a water well would be located. What impact on that well? Conjecture seems to be the rational rather than facts.

6.2.3.3 Impacts of upland discharge

I14-9 No site specific data is presented because "access to the upland ..study area was limited". So the EIS assumes the City owned landfill site is the same soil and groundwater conditions as the upland area.There is no science to support the presumption and "site-specific investigations would be conducted to ensure suitability ", this is after the fact investigating and certainly not factual enough for the County Executive to make a decision.

I14-10 In discussing groundwater mounding, there is a conflict between section 4.1.4.3 "The site is suitable for infiltration" and 6.2.3.3 "This would raise the water table to the surface and could cause localized flooding" continuing it is stated " additional site-specific investigation would be required to determine if soils would have sufficient thickness of material(gravel) to support infiltration and this disposal option (Carollo,2004)" Which is it? 4.1.4.3 or 6.2.3.3???

I14-11 Again in the last paragraph " If upland discharge is determined to be feasible" , is this the basis for writing an alternative? when you state you don't even know if it is feasible?

6.2.5 No action alternative

I14-12 "Risk to surface and groundwater quality would continue... as aging systems continue to fail" What would be the problem of repairing these failed systems with one of the County approved systems?

I14-13 The PHSKC letter states "Since this 1987 declaration little has changed in regards to the disposal-only systems and their potential to contaminate ground water". Did the PHSKC survey Carnation to see if their statement is factual? Did they review applications for repair or replacement of existing septic systems in Carnation? Has PHSKC ever documented in Carnation a contamination of surface or groundwater from septic systems? Has any illness been factually documented in Carnation from contaminated ground water? Has it been confirmed by testing? Would it not be a cost effective method to repair existing disposal-only systems with County approved mound or traditional septic systems?

Thank you for the opportunity to comment on this EIS.
Paul Webber
14418 NE 64th St.
Redmond, Wa 98053

Webber (I14)

Response to Comment I14-1

It is agreed that all three discharge alternatives are located in the same geologic setting. The seismic hazard area identified on Figure 4-1 is from the King County Sensitive Areas Ordinance (SAO). The SAO defines seismic hazard areas as "those areas in King County subject to severe risk of earthquake damage as a result of soil liquefaction in areas underlain by cohesionless soils of low density and usually in association with a shallow groundwater table or of other seismically induced settlement (KCC 21A.06.1045)." As this definition indicates, the specific seismic hazard being mapped and regulated is soil liquefaction. This definition does not consider other seismic hazards such as ground shaking and landslides. Generally, the soils on the Snoqualmie Valley floor adjacent to the river have properties that indicate that liquefaction during an earthquake is a risk. Therefore, those areas are mapped as seismic hazard areas. Soils at higher elevations in the Snoqualmie Valley do not have the properties that indicate that liquefaction is a risk. The river and wetland discharge options are located on the Snoqualmie Valley floor at or adjacent to the river and therefore in mapped seismic hazard areas. The upland discharge alternative is at a higher elevation in the Snoqualmie Valley and is not mapped as a seismic hazard area.

As described in Chapter 9, Section 9.1.1, construction of any of the project facilities in sensitive areas of unincorporated King County would be subject to regulation under the King County Sensitive Areas Code.

Chapter 4, Section 4.2.1.3 describes the design standards that the pipelines would have to meet to withstand the level of earthquake hazard anticipated for the project area.

Response to Comment I14-2

Chapter 4, Section 4.2.1.2 describes the seismic site classes for all project sites. These site classes are from the International Building Code.

Response to Comment I14-3

Section 3.2 of Technical Memorandum 5A discusses the soil conditions at the City's landfill site and how they compare to the soils of the upland disposal study area. Based on available information, it is very likely that the soils are the same in the study area parcels as at the landfill site.

Response to Comment I14-4

Section 4.2.1.2 describes the seismic risk in the project area. Section 4.2.1.3 describes the design standards that the treatment plant, pipelines and discharge structures would have to meet to withstand the level of earthquake hazard anticipated for the area.

Response to Comment I14-5

The discussion of groundwater depth is based on credible, widely accepted documentation backed by the opinion of licensed hydrogeologists familiar with the area. This documentation provides information at a level of detail sufficient for environmental impact analysis. If necessary, groundwater depths would be investigated in greater detail during facility design. The discussion of the near surface geology at the Stillwater is similarly based.

Response to Comment I14-6

These uncertainties exist because King County has been unable to gain access to the upland discharge study area. As a result, the EIS, as prescribed by SEPA, presents a worst case analysis of the upland discharge alternative's potential environmental impacts. Please also see the response to comment Casey, I1-1 and Chapter 6, Section 6.2.3.3.

Response to Comment I14-7

Please see the response to comment I14-6.

Response to Comment I14-8

Please see the response to comment I14-6.

Response to Comment I14-9

Please see the response to comment Casey, I1-1.

Response to Comment I14-10

Chapter 4, Section 4.1.4.3 has been revised to provide more detail on the geology of the upland discharge study area. This revision clarifies that the two sections are consistent.

Response to Comment I14-11

Please see the response to comment Casey, I1-1.

Response to Comment I14-12

The City of Carnation considered this and other on-site wastewater treatment and disposal alternatives, as noted in Chapter 3, Section 3.4.1. Please see the City plans referred to in that section for more detail on the issues associated with these alternatives.

Response to Comment I14-13

Please contact PHSKC for the requested information concerning the statements made in their 2003 letter.

Chapter 3, Section 3.4.1 notes the wastewater treatment and disposal alternatives considered by the City of Carnation. Please see the City plans referred to in that section for more detail on the issues associated with these alternatives.

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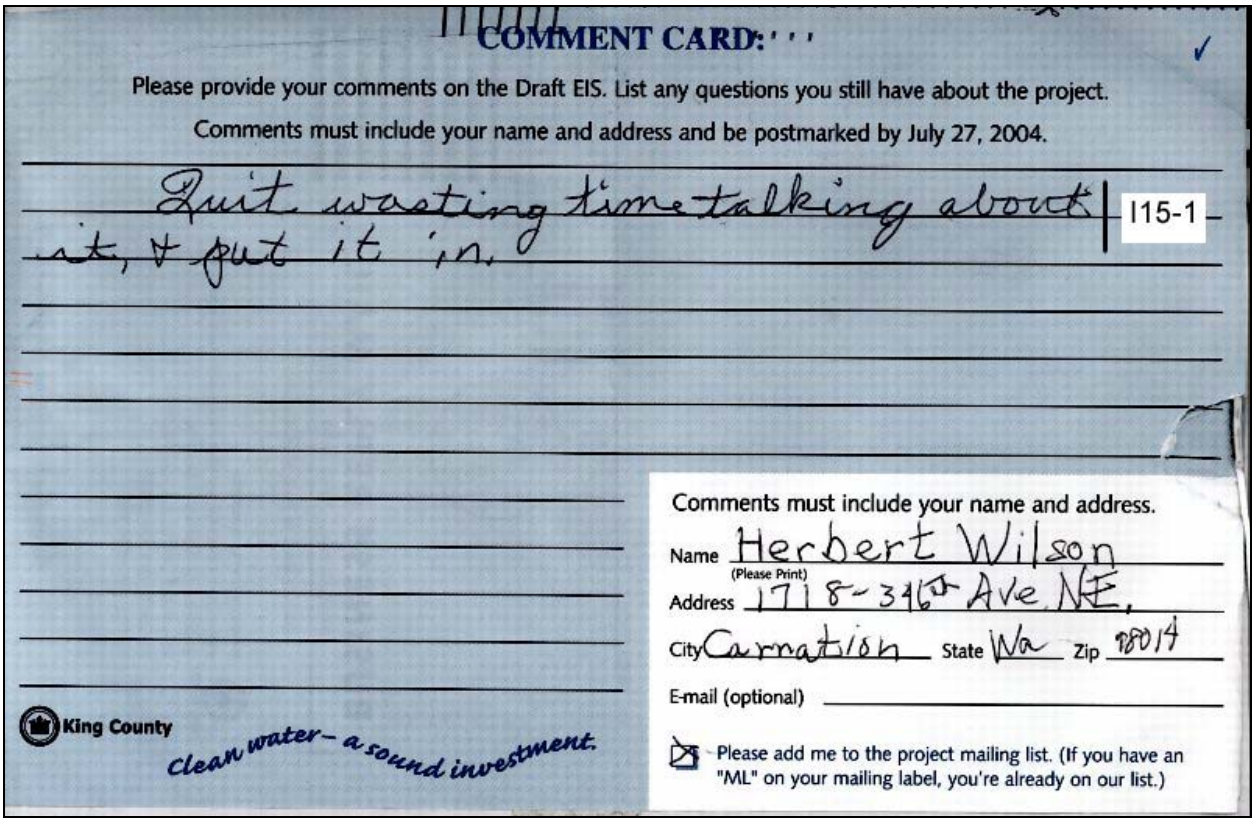

COMMENT CARD:

Please provide your comments on the Draft EIS. List any questions you still have about the project.

Comments must include your name and address and be postmarked by July 27, 2004.

Quit wasting time talking about it, & put it in. I15-1

King County

clean water– a sound investment.

Comments must include your name and address.

Name Herbert Wilson
(Please Print)

Address 1718-346th Ave NE.

City Carnation State Wa Zip 98014

E-mail (optional) _____

Please add me to the project mailing list. (If you have an "ML" on your mailing label, you're already on our list.)

Wilson (I15)

Response to Comment I15-1

Thank you for your comment.